Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Habitat Fragmentation			
Collisions with fencing	All land managers	Increase the visibility of fences and other structures if these structures are documented to be hazardous to flying grouse (e.g., birds have been observed hitting or narrowly missing these structures or grouse remains have been found next to these structures)	As needed and on an ongoing basis
	All land managers	Avoid construction of fences within 0.6 miles of active leks	As needed and on an ongoing basis
	All land managers	Consider alternatives to fencing and alternative fence designs in active lek areas	As needed and on an ongoing basis
Off-highway vehicle (OHV) use in all habitats	Challis LWG	Review existing and proposed resource management plans/travel management plans and evaluate impacts to sage-grouse habitats	As needed and on an ongoing basis
	Land management agencies	Develop travel management plans where they do not exist or revise existing plans that are inadequate	As needed and on an ongoing basis
	All land managers	Consider avoiding sage-grouse habitats when developing OHV timing and use restriction	As needed and on an ongoing basis
	Challis LWG	Provide comments to the land management agencies whenever those agencies are developing OHV timing and use restrictions. The Challis LWG will request to be added to mailing lists for all travel planning documents	As needed and on an ongoing basis
	Challis LWG	Notify land management agencies that are responsible for enforcement of OHV use and timing restrictions as to seasonal use areas for priority enforcement	As needed and on an ongoing basis
	Challis LWG in cooperation with the land management agencies, IDFG, Idaho Department of Parks & Recreation, and user groups	Educate the public about the impacts of OHV activities on sage-grouse habitats	As needed and on an ongoing basis
	Land management agencies and IDFG	Place education materials at visitor information centers throughout the Challis LWG area	On an on-going basis

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Excessive avian predation resulting from placement of transmission lines & structures	All land managers	Consider the alternative of underground powerlines in the vicinity of sage-grouse habitats	As needed and on an on-going basis
	Land management agencies	Consider sage-grouse habitats when siting new utility corridors and facilities	As needed and on an on-going basis
	All land managers	Identify areas with existing utility lines in sage-grouse habitats and work with utility companies to install anti-perching devices	As needed and on an on-going basis
Risks associated with landfills and transfer stations	Land management agencies and local governments (in consultation with IDFG)	Consider alternatives that would avoid sage-grouse habitats when siting new landfills and transfer stations, where possible	As needed and on an on-going basis
Risks associated with communication sites in the vicinity of seasonal habitats	Land management agencies	Consolidate new communication site development in areas of existing communication sites	As needed and on an on-going basis
Risks of urbanization in sage-grouse habitat	Challis LWG	Encourage securing conservation easements and development of incentives to maintain native rangelands	As needed and on an on-going basis
	Challis LWG	Encourage conservation easement purchases in the vicinity of critical habitats	As needed and on an on-going basis
	Challis LWG and IDFG	Provide input during development of county land-use plans to encourage open space in sage-grouse habitats	As necessary and appropriate
Loss of habitat resulting from roads	Land management agencies	Consider consolidation of multiple roads leading to the same location (where users have developed new roads to avoid seasonal conditions) in seasonal habitats in reviewing travel management plans. All Challis LWG members are encouraged to participate in local land use planning processes	As needed
	All land managers	Minimize new road construction in nesting and winter habitats	On an on-going basis
	All land managers	Consider alterations to roads that are affecting wetland hydrology through maintenance, relocation, closure, culverts, and other measures	As needed and on an on-going basis

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Loss of habitat resulting from mining	Land management agencies	Consult with biologists when reviewing notices and mine plans for new mines and gravel pits	As needed and on an on-going basis
Loss of habitat resulting from wind farms	All land managers	Avoid siting new wind farm developments in priority habitat areas	As needed and on an on-going basis
	Challis LWG	Review proposals and make recommendations for siting wind farm developments	As needed and on an on-going basis
Invasives			
Risks to habitats related to invasive vegetation	Cooperative Weed Management Areas (CWMA), in cooperation with all land managers	Encourage the continuing inventory for invasive	On an ongoing basis
	Challis LWG, all land managers	Continue to support the CWMA ongoing efforts to treat invasives	On an ongoing basis
	Challis LWG	Prioritize areas for treatment in sage-grouse habitats where non-natives have invaded and collaborate with the CWMA and all land managers to implement restoration projects. These projects could include reseeding if appropriate	On an ongoing basis
	All land managers	Minimize new surface disturbances that create an opportunity for colonization of invasives and consider reseeding if appropriate	On an ongoing basis
	Land management agencies	Consider stipulations and reclamation requirements emphasizing the use of native species when authorizing new right-of-ways and mine plans	As needed
	Land management agencies	Consider stipulations and reclamation requirements emphasizing the use of native species when updating existing right-of-ways	As needed
	Land management agencies	Require vehicle washing to remove invasive weeds at fire camps and other appropriate locations	On an ongoing basis

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Risks associated with inappropriate management strategies			
Inadequate data on population status and trends	Whitebark, Inc.	Compile and verify known data on population status and trend	Completed
	Challis LWG	Coordinate with partners to acquire additional population data and enhance the understanding of population trends through telemetry studies, aerial lek searches, lek route counts, etc.	On an ongoing basis. Activities to date include the Pahsimeroi, Lemhi, and Ellis telemetry studies and lek identification work (aerial & ground).
	Challis LWG	Consider recommending changes in management strategies	When data identify sustained population changes
Inadequate data on habitat condition and use	Land management agencies	Propose adaptive habitat management strategies (using tools such as fire, grazing, mechanical and chemical treatments) to meet sage-grouse habitat objectives	On an ongoing basis
	BLM	Continue sage-grouse habitat assessments on lands administered by the agency	On an ongoing basis
	Challis LWG	Encourage the U.S. Forest Service (USFS) to adopt the same guidelines that are used by the BLM	On an ongoing basis
	Whitebark, Inc.	Compile and verify known data on habitat condition and use	Completed
	Challis LWG	Coordinate with partners to acquire additional habitat condition and use data to determine seasonal use areas, assess degree of use, and evaluate the condition of those use areas	On an ongoing basis
	All land managers	Take the lessons learned from areas where birds are thriving and apply them to areas where birds are limited	On an ongoing basis
Inadequate site specific knowledge, including site potential	All land managers	Support the Natural Resources Conservation Service (NRCS) work on updating ecological site descriptions.	
Inability of land management agencies to respond to current conditions and needs	Land management agencies	Respond to changes in current conditions and needs to the extent as is fiscally and legally possible	As needed and on an ongoing basis

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Improper Livestock Management			
Risks posed by improper livestock management	All land managers	To make significant progress towards achieving/maintaining proper functioning condition (PFC) or late seral conditions based upon Multiple Indicator Monitoring definitions of riparian/wetland areas in brood-rearing habitat (if PFC assessment indicates an area is functioning at risk or nonfunctional), consider the following: • Annual biological grazing plan (duration, intensity, season of use, timing control) • Permanent fencing • Temporary fencing • Piping of water to troughs (off-site water) • Supplement/mineral placement • Herders/riders • Target/monitor utilization levels to trigger livestock movement • PFC re-assessment • Other creative ideas	On an ongoing basis through annual authorizations and permit renewals
	All land managers	Manage grazing to achieve and maintain appropriate structure and appropriate sagebrush/forb communities to meet habitat needs. The following should be considered: • Annual biological grazing plan (duration, intensity, season of use, timing control) • Permanent fencing • Temporary fencing • Piping of water to troughs (off-site water) • Supplement/mineral placement • Herders/riders • Target/monitor utilization levels to trigger livestock movement • PFC assessment • Other creative ideas.	On an ongoing basis through annual authorizations and permit renewals

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
	All land managers	Establish grazing management that would enhance forb diversity and vegetative cover when considering cattle to sheep conversions in sage-grouse habitats.	As needed
	Land management agencies	Monitor grazing/bedding on active leks and advise livestock operators of active lek locations	On an on-going basis
	Livestock operators	Avoid placement of mineral/salt supplements on lek locations during strutting	March though May
	All land managers	Place water troughs at least 0.6 miles from active leks where possible when existing water developments are replaced and new water developments are constructed	As needed
	All land managers	Install and maintain bird ladders in troughs	On an on-going basis
	All land managers	Maintain free-flowing characteristics of springs and wet meadows through the use of float valves or by returning water back to a natural channel when existing water developments are replaced and new water developments are constructed.	As needed
	All land managers	Prioritize funding for rangeland infrastructure to address sage-grouse management objectives	On an ongoing basis
	All land managers	Explore other funding mechanisms to increase overall funding levels for rangeland infrastructure	On an ongoing basis
Fire			
Risks to sage-grouse habitat related to fire	Challis LWG	Map all known sage-grouse habitat use areas within the area of interest.	Completed
	Challis LWG	Prioritize and map priority areas for fire suppression.	Completed
	Land management agencies	For all wildfires in sage-grouse habitat, land management agencies should assign resource advisors knowledgeable about sage-grouse to work with fire suppression personnel/teams	On an as-needed basis
	Challis LWG in consultation with BLM and USFS fire ecologists and fuel specialists	Prioritize and map areas for maintenance (including fuels treatment) and restoration of sage-grouse habitats.	Completed

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
	Land management agencies, in consultation with the appropriate CWMA, IDFG and the NRCS	Develop plans for avoidance and treatment of invasives following each fire event. This conservation measure will be implemented in two steps: • The Challis LWG will develop guidelines specific to sage-grouse for use in development of fire suppression and rehabilitation guidelines. • The land management agencies will develop maps of known weed locations using data provided by the appropriate CWMA.	By spring of 2008 ; then, following each fire event
	Land management agencies	Conduct evaluations of sage-grouse habitats as soon as possible after each fire event to determine if reseeding (with sagebrush, bunch grasses, and native forbs, if possible) is necessary. The results of these evaluations will be incorporated into Burned Area Emergency Rehabilitation Plans (BAER) and/or Emergency Stabilization and Rehabilitation (ESR) Plans, as appropriate.	During development of BAER and ESR plans
	Challis LWG in cooperation with NRCS	Conduct educational outreach with private landowners before and after fire events regarding conservation measures related to fire	On an ongoing basis
Risks associated with other natural causes			
Risks to sage-grouse habitat resulting from other natural causes	BLM Challis Field Office	Follow herd management plans for wild horses and stay within appropriate management levels	On an ongoing basis
	Challis LWG	Discuss, with the land management agencies, the development of drought management plans to address risk factors in all sage-grouse habitats	Begin by December of 2009
	All land managers	Consider reseeding (with sagebrush, bunch grasses, and native forbs, if possible) and treatment of invasive species following major insect/disease infestations	As needed
	All land managers	Evaluate sites where sagebrush form and canopy are inadequate so as to determine if wildlife utilization is the cause	On an ongoing basis
	IDFG	Consider modifications of herd objectives if wildlife grazing is determined by land managers to be the cause of inadequate sagebrush form and cover	As needed

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Excessive Predation			
Risks to sage-grouse populations associated with excessive predation	Challis LWG, in cooperation with IDFG	Secure funding for studies, i.e., telemetry, to assess predation problems	If populations are static or declining over a period of three years
	IDFG	Consider all relevant guidelines in the decision-making process related to predator management measures	Whenever predation is documented to be excessive
Human Disturbance			
Risks to habitat associated with human disturbance	Challis LWG in cooperation with IDFG and user groups	Educate the public and volunteers regarding potential impacts to leks and nesting areas	On an ongoing basis
	Land management agencies	Work cooperatively with user groups and volunteers to educate the public and to enforce current OHV restrictions	On an ongoing basis
	Land management agencies	Strengthen management guidelines for OHV use with respect to sage-grouse habitats	On an ongoing basis
	Challis LWG	Encourage cooperative agreements between federal, state, county, and local law enforcement agencies to support enforcement of OHV regulations	Whenever possible
	Challis LWG	Participate in travel management planning processes	Whenever possible
	Land management agencies	Consider sage-grouse habitat needs prior to implementation of vegetation manipulation (including herbicide applications and mechanical treatment)	As needed
	Challis LWG	Educate county extension agents, NRCS, soil conservation districts, CWMA, and private landowners regarding sage-grouse habitat needs	On an ongoing basis

Appendix C. Implementation Plan for Conservation Measures in the Challis Sage-grouse Conservation Plan			
Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Health Risks to Sage-grouse Populations			
Risks to sage-grouse populations associated with inadequate nutrition, disease, and toxicity related to pesticide use	All land managers	Maintain/improve meadows and riparian areas, without losing forbs, where feasible	On an ongoing basis
	All land managers	Consider planting native and/or desired non-native forbs in range restoration and reclamation projects	As needed and where necessary
	All land managers	Apply management techniques, i.e., grazing systems, inter-seeding, and other mechanical treatments, etc., to achieve optimum forb and insect production	As needed
	IDFG	Submit dead sage-grouse for testing for West Nile Virus	Within 24 hours of death
	All pesticide applicators	Follow U.S. Environmental Protection Agency label instructions and restrictions	On an ongoing basis
	All land managers	Consider alternatives to pesticides, i.e., biological controls or less toxic chemicals	On an ongoing basis
Overharvest			
Risks to sage-grouse populations associated with overharvest	Challis LWG	Consider all relevant guidelines and current information when making recommendations to the Idaho Fish and Game Commission for changes in hunting regulations	As conditions warrant
	Challis LWG	Recommend implementation of mandatory harvest reporting to the Idaho Fish and Game Commission to enhance population monitoring. Reports should include topographic features/land forms to identify where harvest occurs	On an ongoing basis
	IDFG	Use the enhanced harvest data to recommend hunting modifications, i.e., closures, limits, permits)	Once mandatory harvest reporting has been implemented
	Challis LWG	Recommend changes in falconry regulations to Idaho Fish and Game Commission	If adverse population impacts are documented

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Specific Risk	**Responsible Party**	**Conservation Measure**	**When**
Successional Vegetation Changes in Brood-Rearing Habitat			
Risks associated with inadequate brood-rearing habitat/meadows	All land managers	Monitor the forb and cover components whenever meadows, springs or riparian zones are excluded from livestock grazing. If either component declines, then vegetative manipulation should be considered to reverse the decline	On an on-going basis
	All land managers	Consider conifer treatment whenever conifers encroach into mesic habitats	On an on-going basis
	All land managers	Maintain a mosaic of sagebrush age classes to provide for multiple condition classes using mechanical, biological, chemical, or fire treatments. In addition, land managers should ensure that the scale of the treatment maintains or creates critical habitat components	On an on-going basis
Public Education Measures			
Inadequate public knowledge of sage-grouse	Challis LWG	Educate the public on sage-grouse conservation measures as they apply to desired actions. For example, the Challis LWG could develop an educational brochure, participate in CWMA functions, participate in county fairs and rancher schools, etc.	On an ongoing basis